Docket No. 60687 (46865)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kusk, Phillip

SERIAL NO.:   09/889,491   GROUP NO.: 1634

FILED: February 5, 2002   EXAMINER: Switzer, Juliet C.

FOR: GENETIC PREDISPOSITION

Mail Stop Non-Fee Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

___

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as Express Mail No.

_____in an envelope addressed to the: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on _____.

By: _____
Patricia A. Barnes

___

Sir:

DECLARATION OF PHILLIP KUSK UNDER 37 CFR 1.132

I, Phillip Kusk, declare as follows:

1.   I have read the above-identified application (hereafter "subject application") of which I am the inventor.

2.   I currently hold the position of _Res. Sci._ at _NsGene_ in _Copenhagen_.

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3.   As I understand it, the subject application discloses and claims, among other things, a method of assessing an individual's predisposition to a selected calcification status which includes the step of determining the genotype of a promoter of the bone sialoprotein (BSPII) gene. More specifically, the method analyzes allelic variation in the promoter and relates the variation to the predisposition.

4.   I reviewed the Patent Office Action ("Office Action") dated January 2, 2004 that issued in connection with the subject application. As I understand the Office Action, the patent Examiner rejected certain claims as indefinite for reciting certain accession numbers from the Genbank database. I am familiar with the contents and use of that database particularly as it relates to the BSPII gene and related sequences disclosed throughout my patent specification.

5.   I have been asked to state the identity of sequences referred to by the following Genbank accession numbers: L24756, M55270, D14813, and AB008821. The accession numbers refer to specific sequences and are featured throughout my patent specification as well as pending claims 25-30. I have been further asked to state whether or not those sequences are identical to those available to me from the Genbank database at the time the above-referenced application was filed.

6.   Attached as **Appendix A** is a list of the sequences referred to by the Genbank accession nos. L24756, M55270, D14813, and AB008821. The list shows, among other things, the chemical identity of each of the sequences including the length of each sequence and positions of each base pair.

7.   Referring now to **Appendix A**, I state that each of the sequences shown as Genbank accession nos. L24756, M55270, D14813, and AB008821 was available to me as a Genbank record no later than January 18, 1999; the earliest priority date of the above-captioned application.
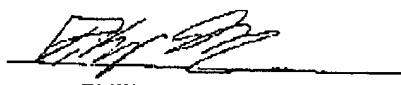
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8. I further state that the base pair positions of each the sequences shown in **Appendix A** as Genbank accession nos. L24756, M55270, D14813, and AB008821 corresponds to the base pair positions referred to throughout my patent specification for the same accession number.

9. For instance, pending claim 25 features two sequences (SEQ ID Nos. 18 and 13) that occur about base pair 1496 of the BSPII gene promoter (Genbank accession number L24756). Those same sequences can be seen in about the same position in **Appendix A** as Genbank accession no. L24756. Additionally, pending claim 28 features two sequences (SEQ ID Nos. 23 and 24) that occur at about base pair 163 of the gene having accession number AB008821. Those same sequences can be seen in about the same position in **Appendix A** as Genbank accession number AB008821.

10. I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 26/JULY/2004

Phillip Kusk

Doc. 451679

APPENDIX A – Pg. 1 of 11

BSPII

```
ID    HSONSP01    standard; genomic DNA; HUM; 2415 BP.
XX
AC    L24756; L06823;
XX
SV    L24756.1
XX
DT    13-JAN-1994 (Rel. 38, Created)
DT    30-JUN-1999 (Rel. 60, Last updated, Version 3)
XX
DE    Human bone sialoprotein (BNSP) gene, exon 1.
XX
KW    sialoprotein.
XX
OS    Homo sapiens (human)
OC    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC    Eutheria; Primates; Catarrhini; Hominidae; Homo.
XX
RN    [1]
RP    1-2415
RX    MEDLINE; 94340202.
RX    PUBMED; 8061918.
RA    Kim R.H., Shapiro H.S., Li J.J., Wrana J.L., Sodek J.;
RT    "Characterization of the human bone sialoprotein (BSP) gene and its
RT    promoter sequence";
RL    Matrix Biol. 14(1):31-40(1994).
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FH    Key             Location/Qualifiers
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XX
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MGP

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AC   M55270; J05572;
XX
SV   M55270.1
XX
DT   21-NOV-1990 (Rel. 25, Created)
DT   02-JUL-1999 (Rel. 60, Last updated, Version 4)
XX
DE   Human matrix Gla protein (MGP) gene, complete cds.
XX
KW   matrix Gla protein; vitamin K-dependent protein.
XX
OS   Homo sapiens (human)
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC   Eutheria; Primates; Catarrhini; Hominidae; Homo.
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RN   [1]
RP   1-7734
RX   MEDLINE; 90368682.
RX   PUBMED; 2394711.
RA   Cancela L., Hsieh C.L., Francke U., Price P.A.;
RT   "Molecular structure, chromosome assignment, and promoter organization of
RT   the human matrix Gla protein gene";
RL   J. Biol. Chem. 265(25):15040-15048(1990).
XX
RN   [2]
RP   1-7734
RA   Price P.A.;
RT   ;
RL   Submitted (20-NOV-1990) to the EMBL/GenBank/DDBJ databases.
RL   Department of Biology, University of California-San Diego, La Jolla, CA
RL   92093
XX
DR   GDB; 126860; MGP.
DR   GOA; P08493.
DR   SWISS-PROT; P08493; MGP_HUMAN.
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APPENDIX A – Pg. 3 of 11

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FT                     some cDNA libraries predict a penultimate alanine while EST
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DT    03-JUN-2002 (Rel. 72, Last updated, Version 7)
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RA    Yamamoto S.;
RT    ;
RL    Submitted (26-MAR-1993) to the EMBL/GenBank/DDBJ databases.
RL    Shunsuke Yamamoto, Oita Medical University, Department of Pathology;
RL    Hasama-machi, Oita #79-55, Japan (Tel:0975-49-4411(ex.2690),
RL    Fax:0975-86-5699)
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RX    PUBMED; 7945249.
RA    Hijiya N., Setoguchi M., Matsuura K., Higuchi Y., Akizuki S., Yamamoto S.;
RT    "Cloning and characterization of the human osteopontin gene and its
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RL    Biochem. J. 303:255-262(1994).
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CC    Shunsuke Yamamoto
CC    Department of Pathology
CC    Oita Medical University
CC    1-1 Idaigaoka, Hasama-machi
CC    Oita Gun, Oita 879-56
CC    Japan
CC    Phone:  0975-49-4411 x2690
CC    Fax:    0975-49-4217
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OPG

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ID   AB008821   standard; genomic DNA; HUM; 1681 BP.
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AC   AB008821;
XX
SV   AB008821.1
XX
DT   06-AUG-1998 (Rel. 56, Created)
DT   07-AUG-1998 (Rel. 56, Last updated, Version 2)
XX
DE   Homo sapiens gene for osteoclastogenesis inhibitory factor, exon 1.
XX
KW   osteoclastogenesis inhibitory factor.
XX
OS   Homo sapiens (human)
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC   Eutheria; Primates; Catarrhini; Hominidae; Homo.
XX
RN   [1]
RP   1-1681
RA   Morinaga T.;
RT   ;
RL   Submitted (13-NOV-1997) to the EMBL/GenBank/DDBJ databases.
RL   Tomonori Morinaga, Snow Brand Milk Products Co., Ltd., Research Institute
RL   of Life Science; 519 Shimo-Ishibashi, Ishibashi-machi, Tochigi 329-0512,
RL   Japan (E-mail:fvbd7042@mb.infoweb.or.jp, Tel:0285-52-1331,
RL   Fax:0285-53-1314)
XX
RN   [2]
RP   1-1681
RX   MEDLINE; 98351569.
RX   PUBMED; 9688283.
RA   Morinaga T., Nakagawa N., Yasuda H., Tsuda E., Higashio K.;
RT   "Cloning and characterization of the gene encoding human
RT   osteoprotegerin/osteoclastogenesis-inhibitory factor";
RL   Eur. J. Biochem. 254(3):685-691(1998).
XX
DR   GOA; O00300.
DR   SWISS-PROT; O00300; T11B_HUMAN.
XX
FH   Key             Location/Qualifiers
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FT                   /sequenced_mol="DNA"
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FT                   /number=1
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SQ   Sequence 1681 BP; 423 A; 450 C; 450 G; 358 T; 0 other;
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APPENDIX A - Pg. 11 of 11

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